

FIG.1A

FIG.1B

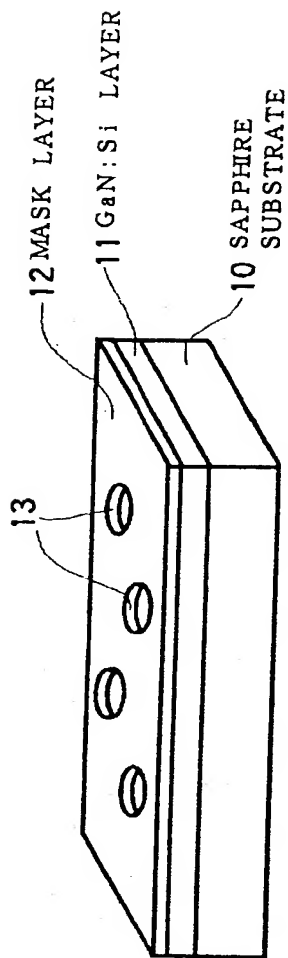
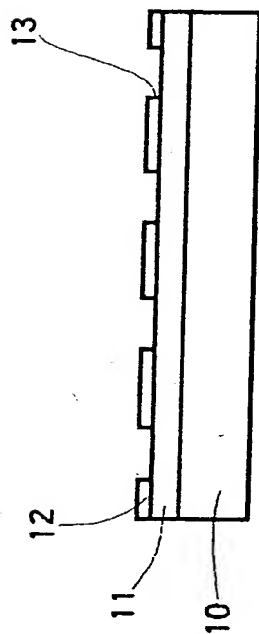


FIG.2A

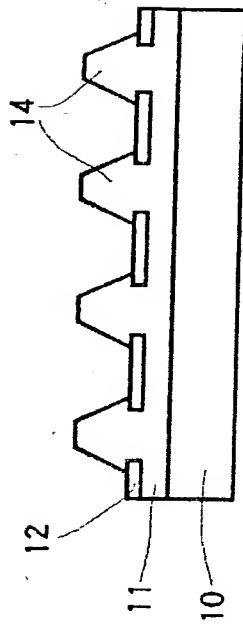


FIG.2B

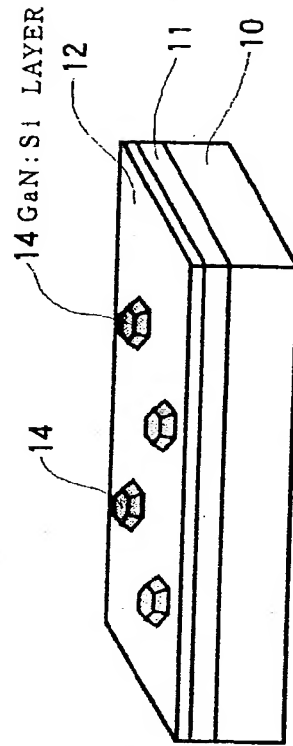


FIG.3A

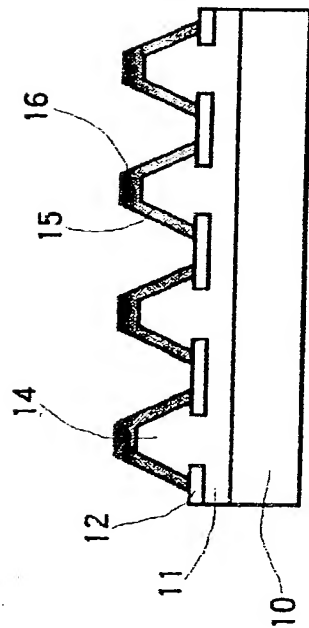


FIG.3B

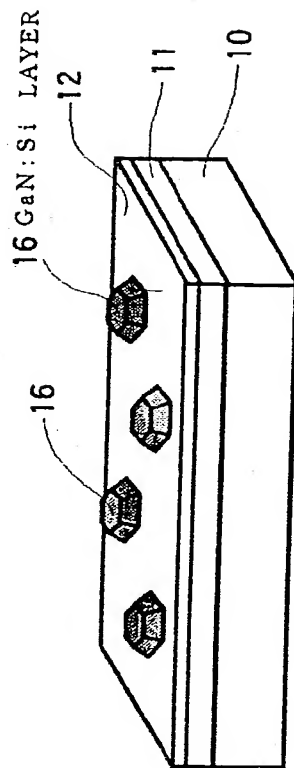


FIG.4A

FIG.4B

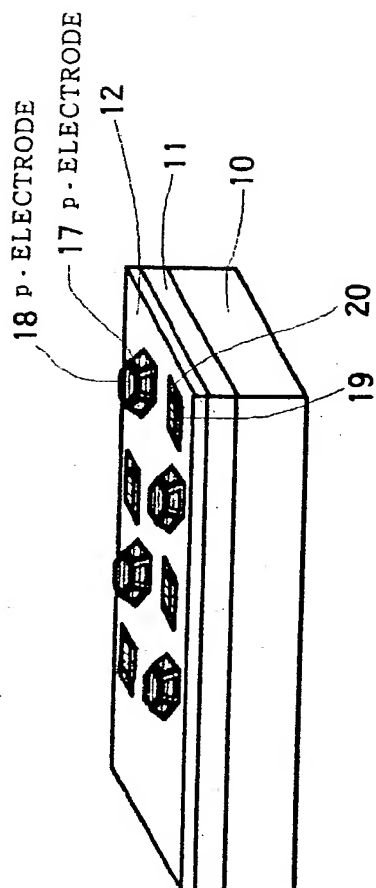
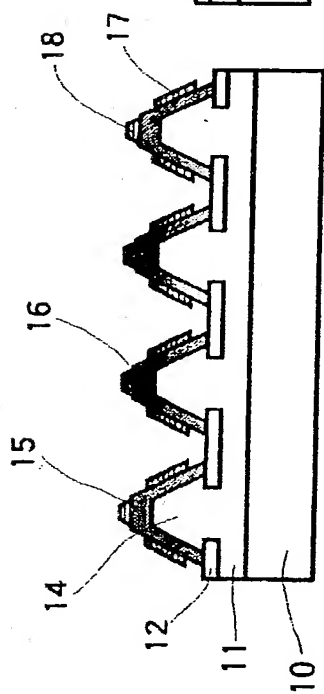


FIG. 5A

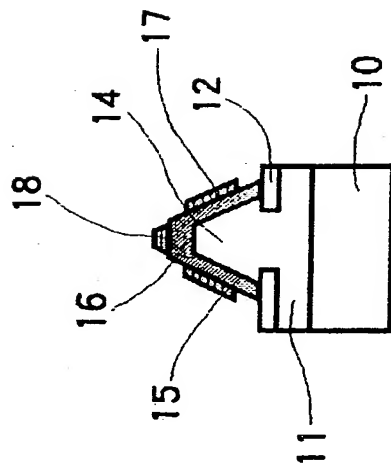


FIG. 5B

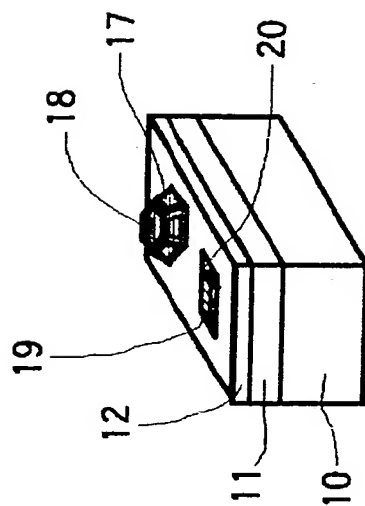


FIG.6

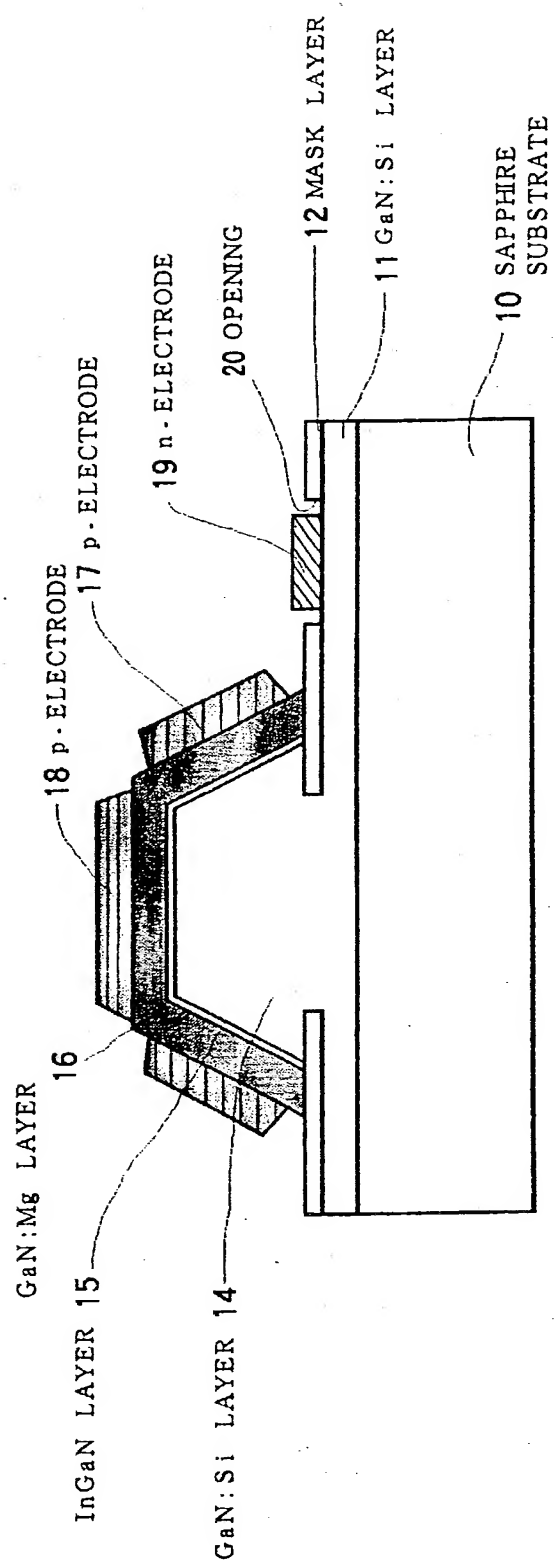


FIG.7A

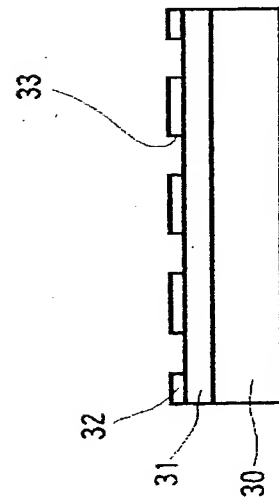


FIG.7B

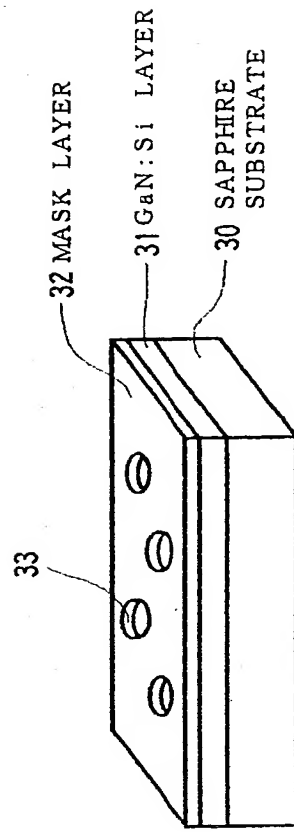


FIG.8A

FIG.8B

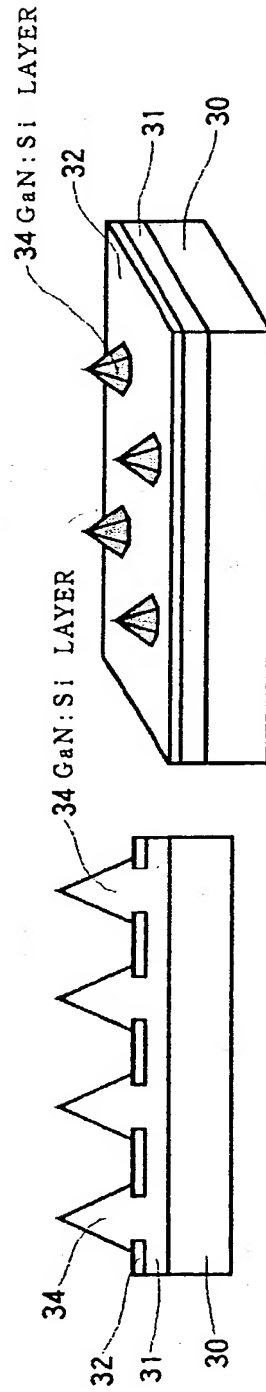


FIG.9A FIG.9B

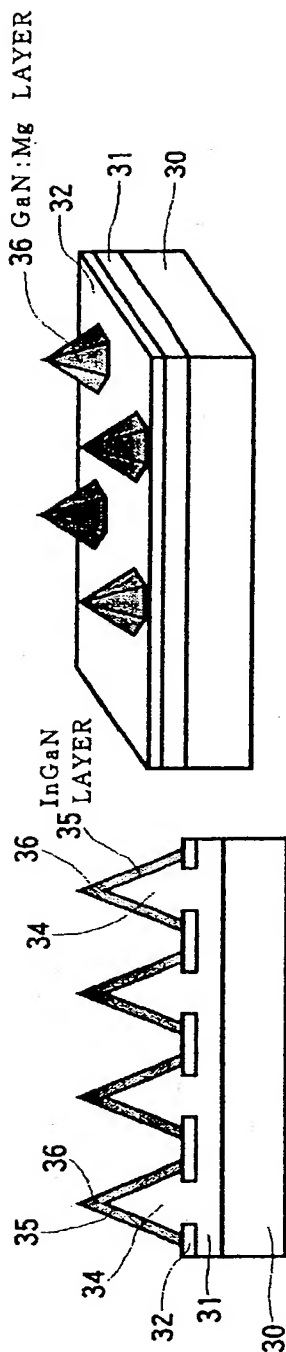


FIG.10A

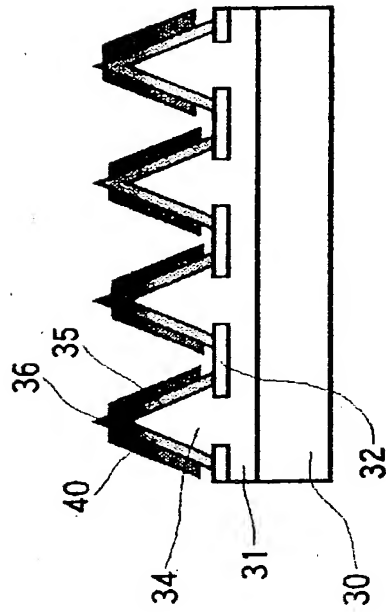


FIG.10B

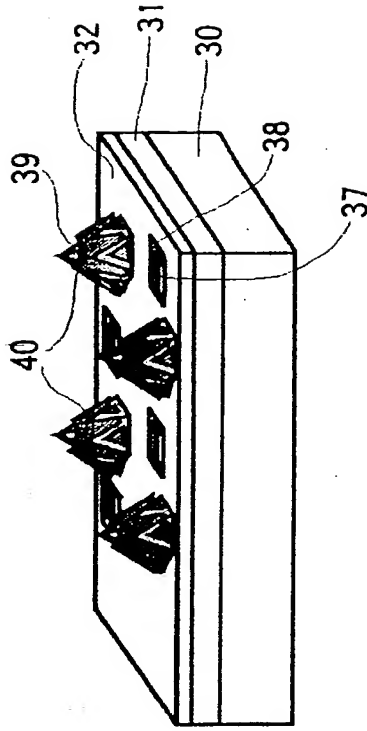


FIG.11A

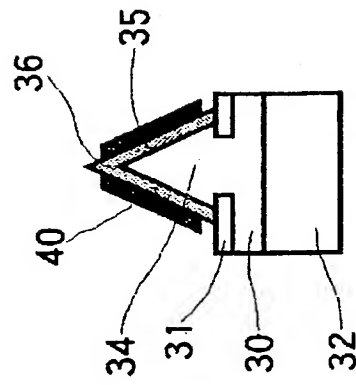


FIG.11B

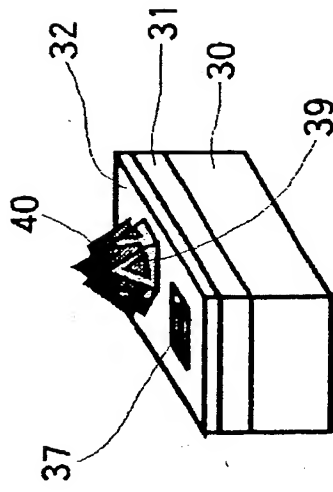


FIG.12

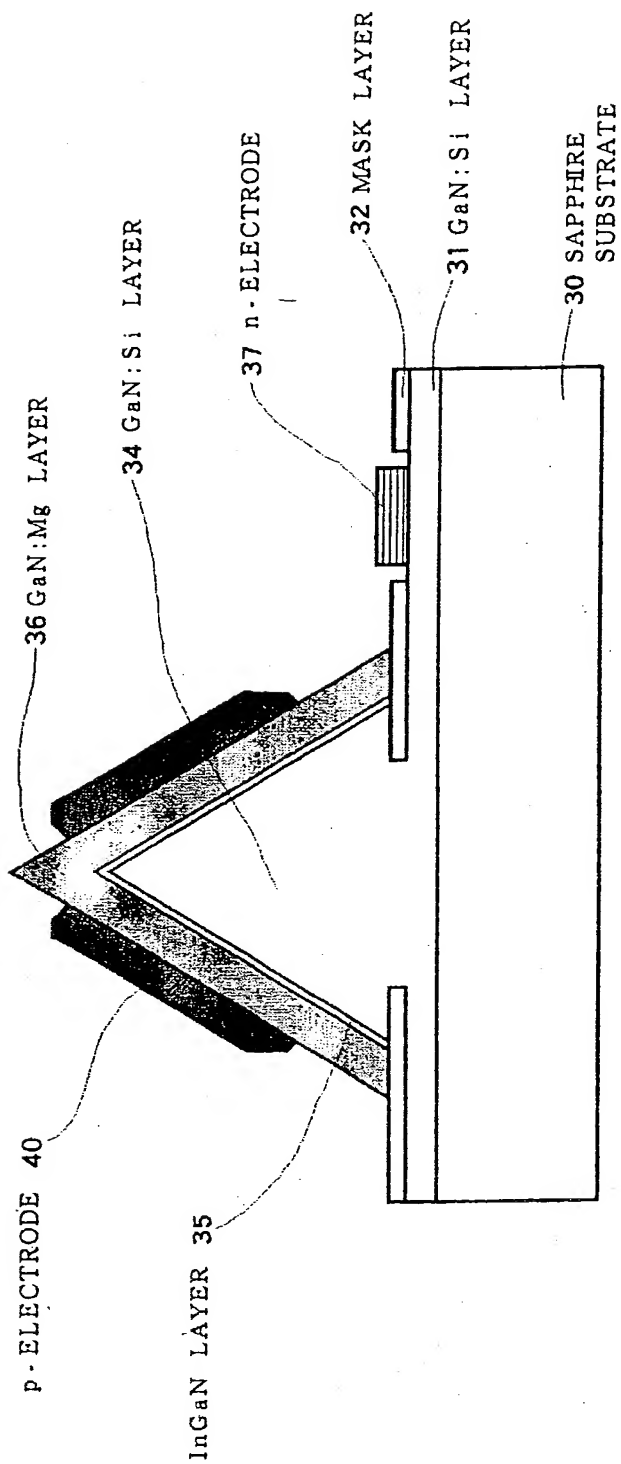


FIG.13A

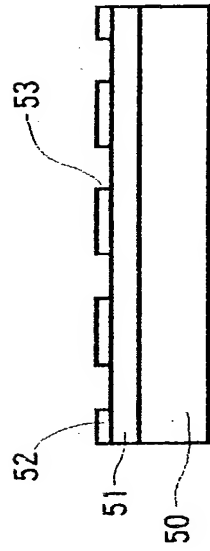


FIG.13B

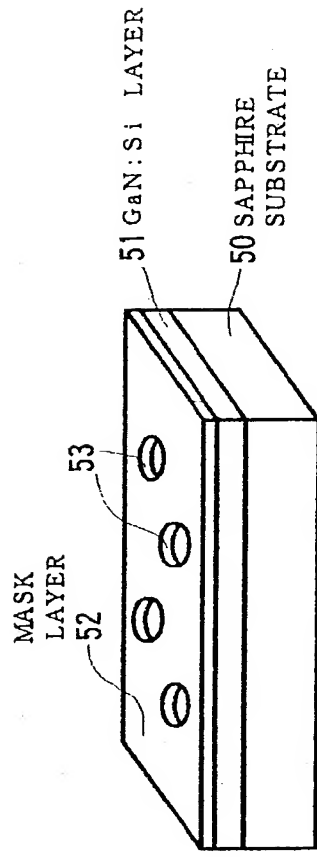


FIG.14A

FIG.14B

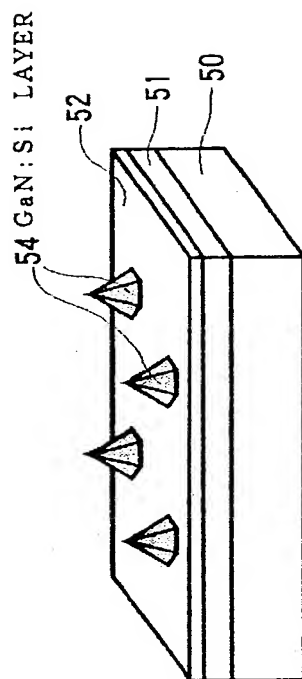
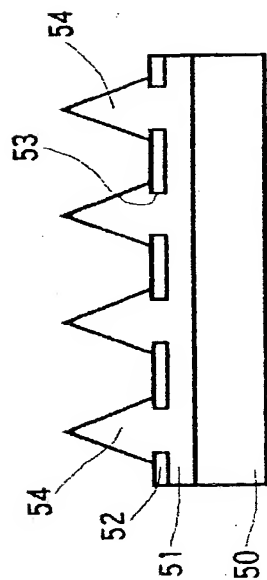


FIG.15A

FIG.15B

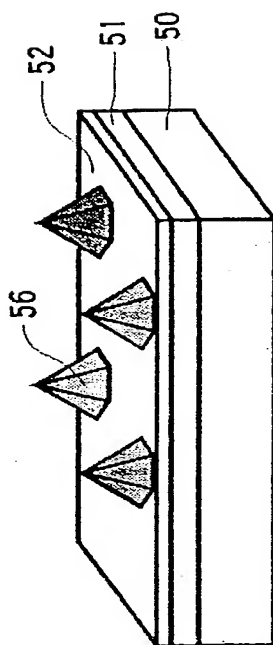
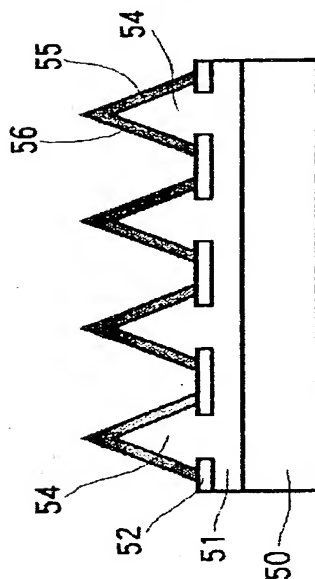


FIG.16A

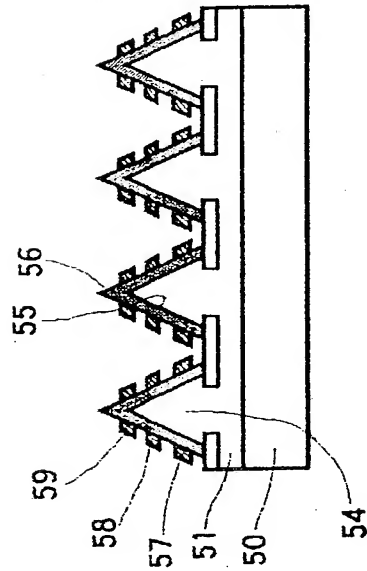


FIG.16B

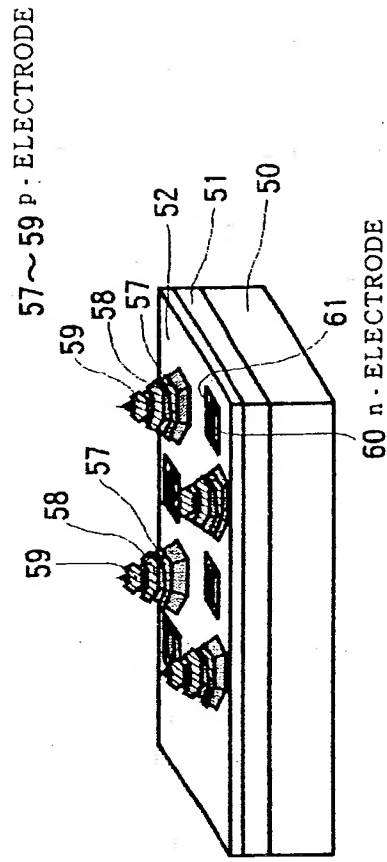
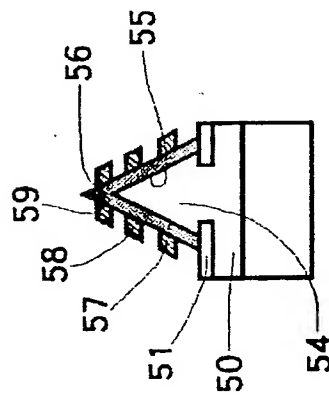


FIG.17A



57~59
p-ELECTRODE

FIG.17B

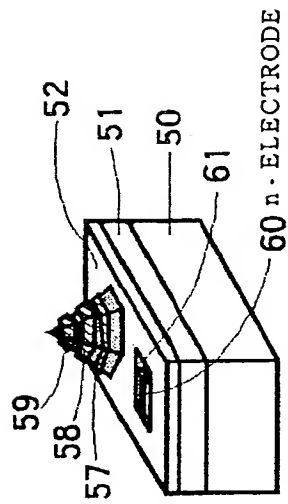


FIG.18

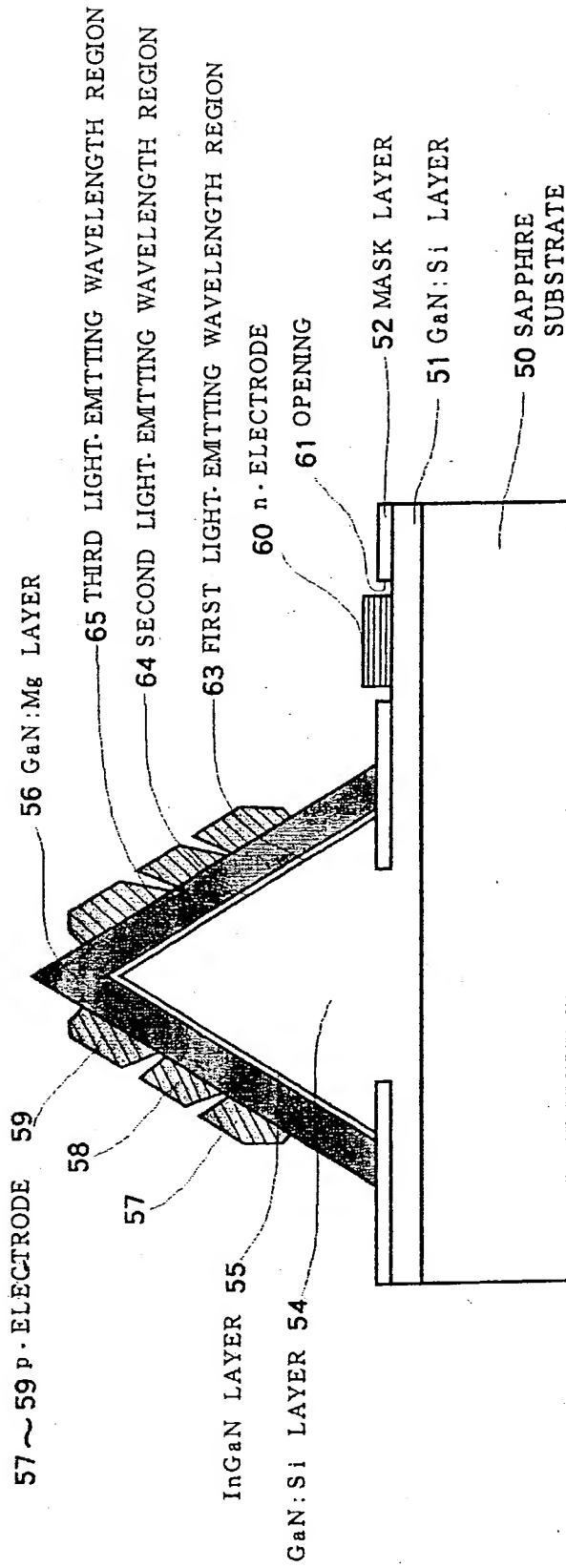


FIG.19A

FIG.19B

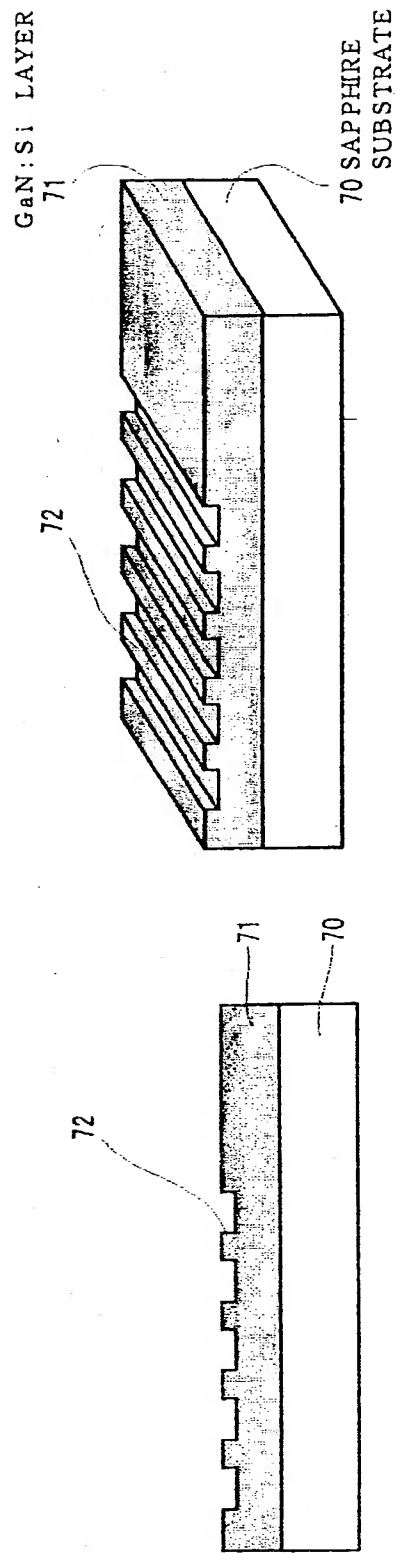


FIG.20B

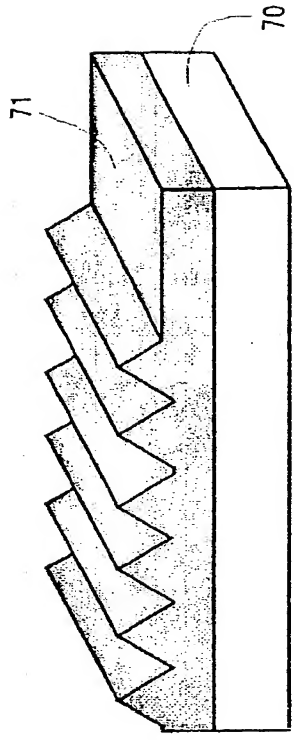


FIG.20A

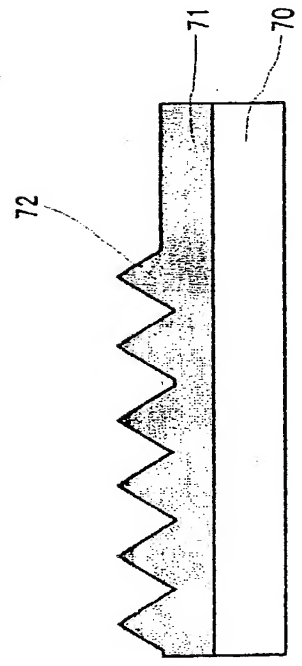


FIG.21A

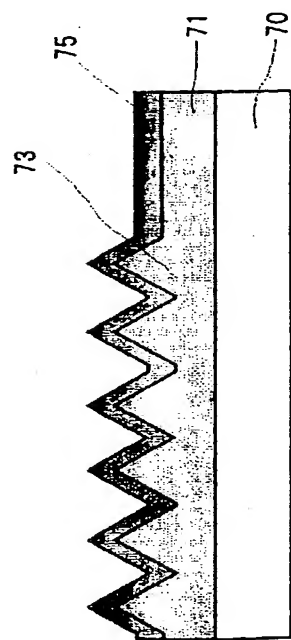


FIG.21B

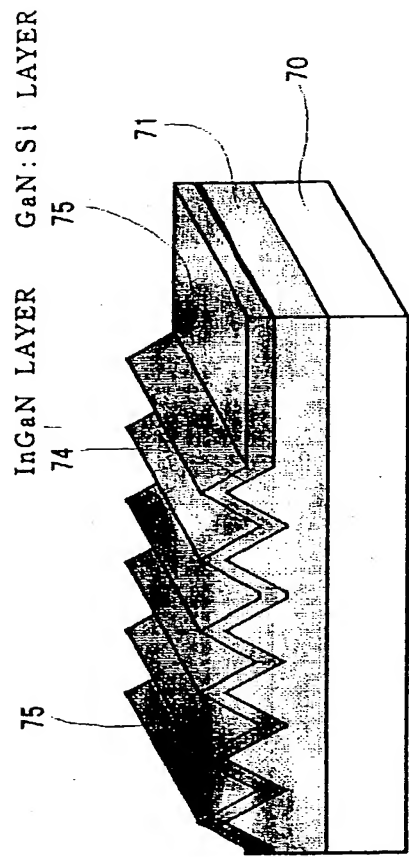


FIG.22A

FIG.22B

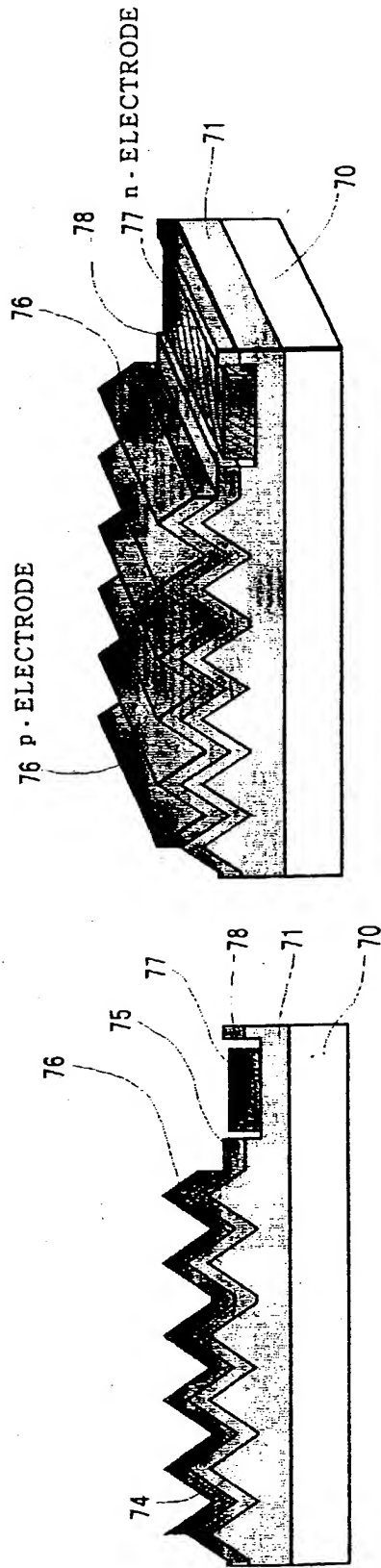


FIG. 23

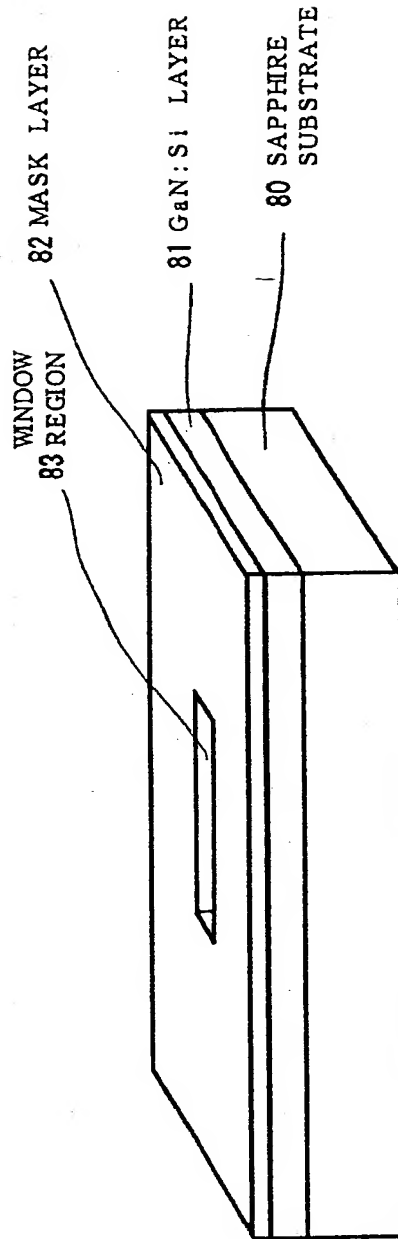


FIG.24

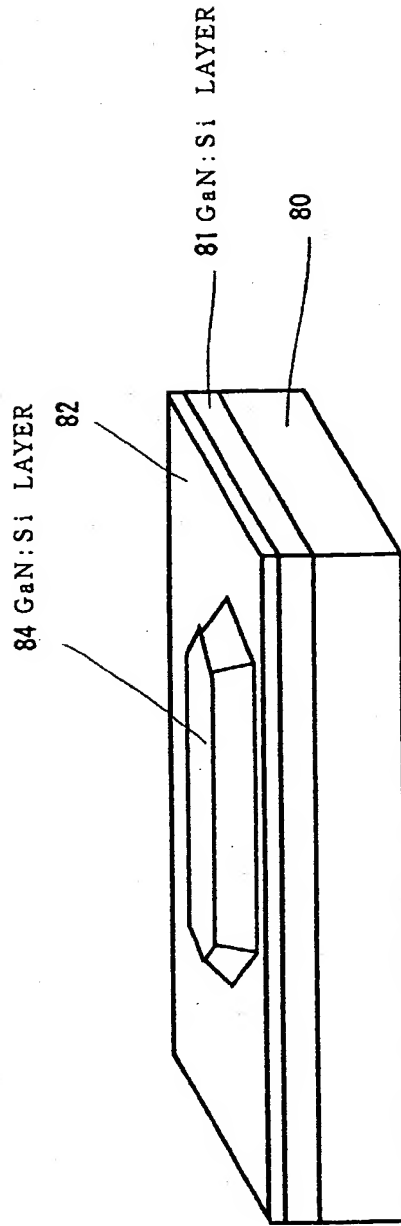


FIG. 25

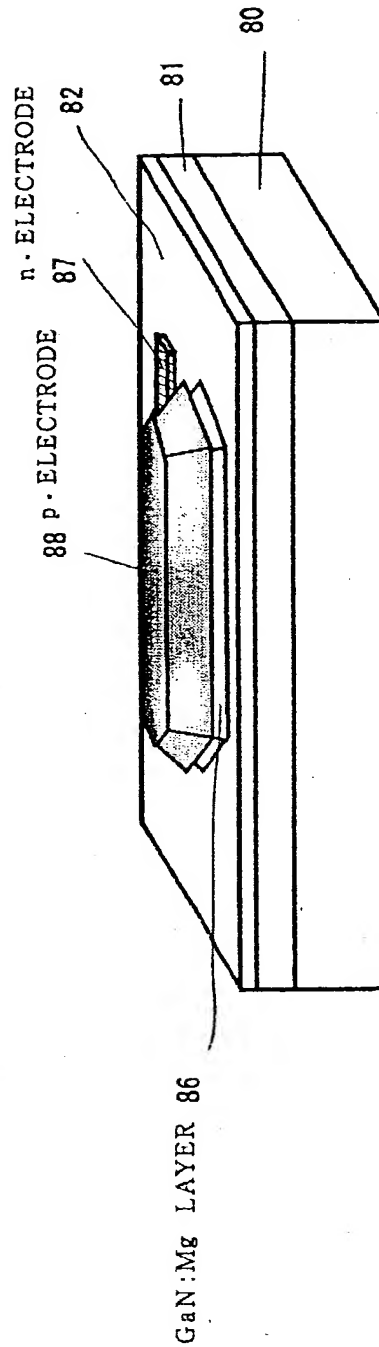


FIG. 26

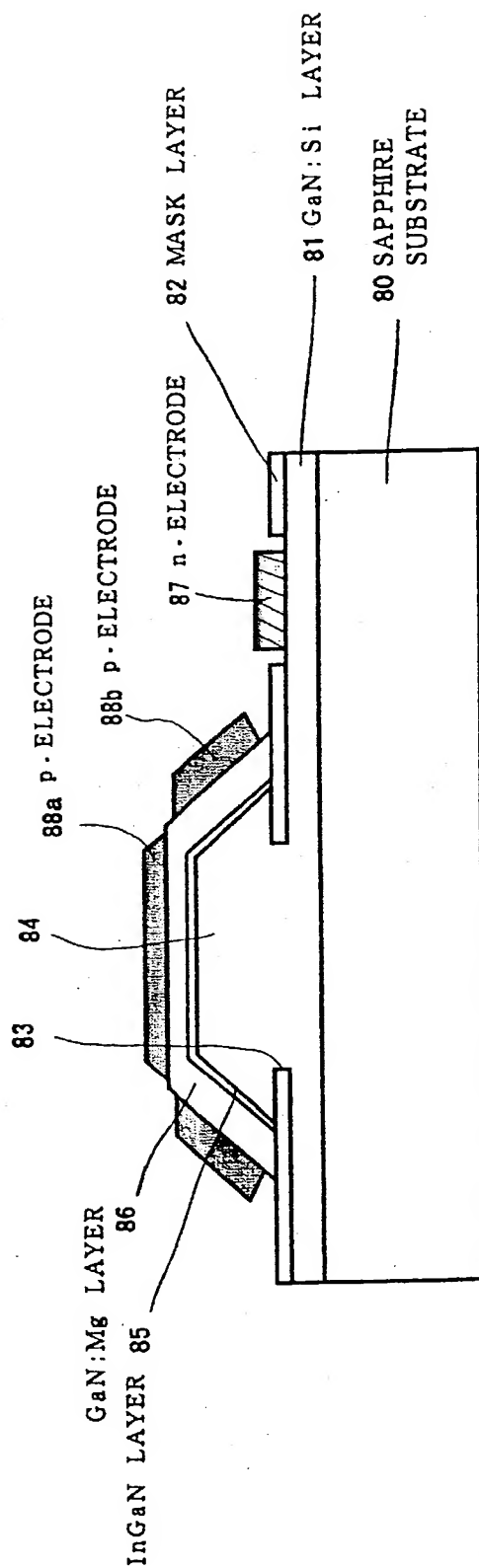


FIG.27

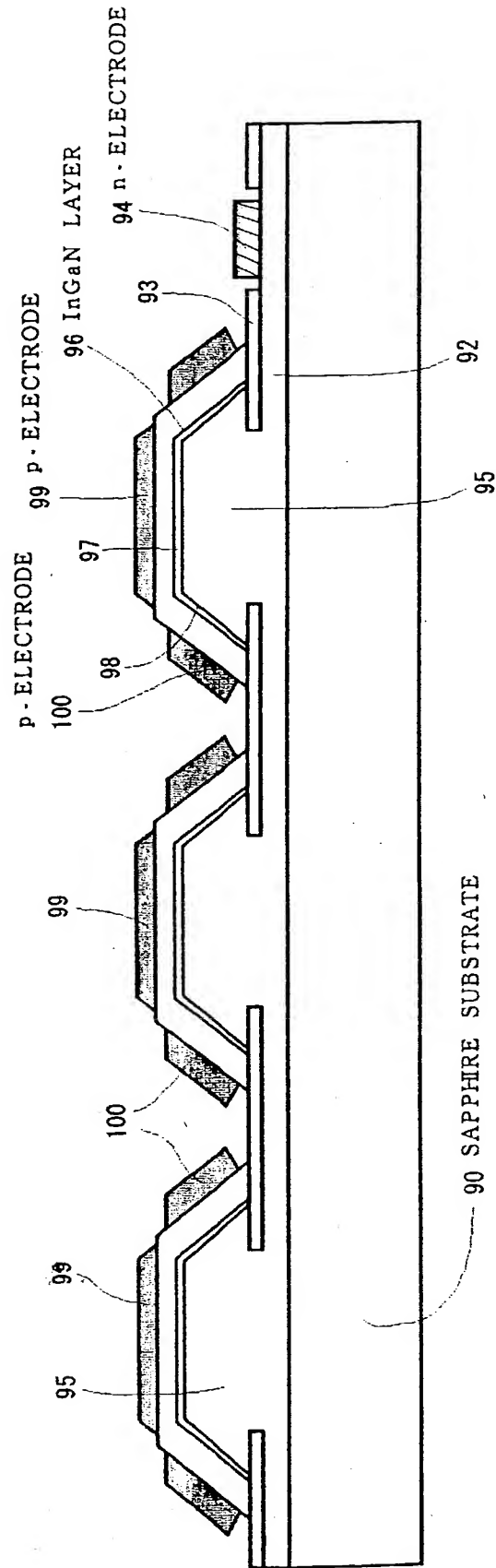


FIG. 28A

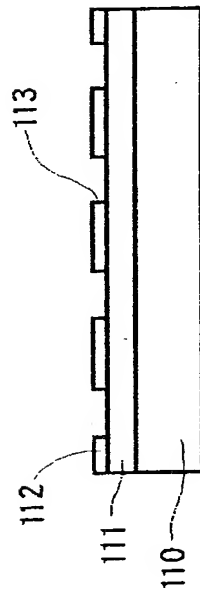


FIG. 28B

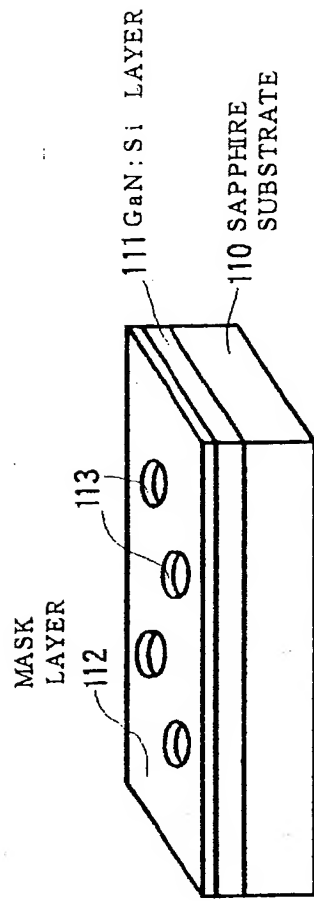


FIG. 29A

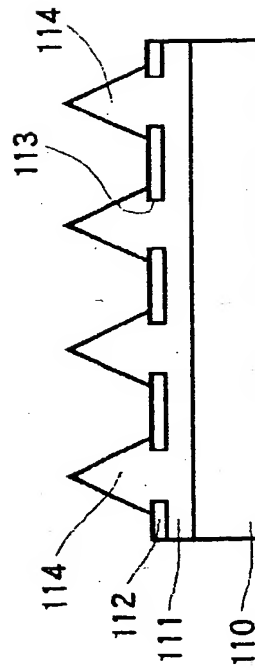


FIG. 29B

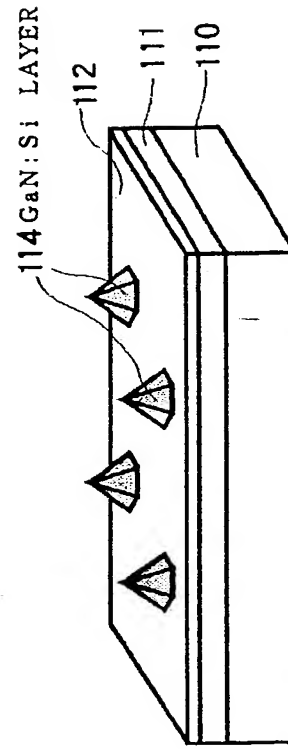


FIG. 30A

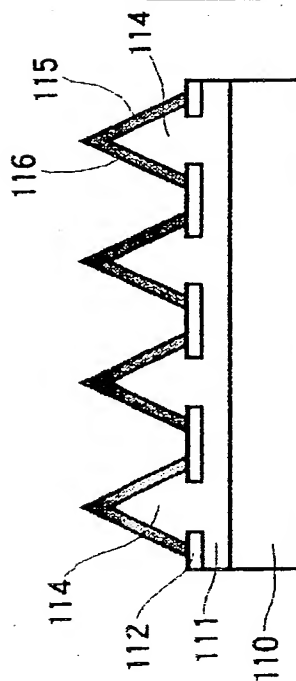


FIG. 30B

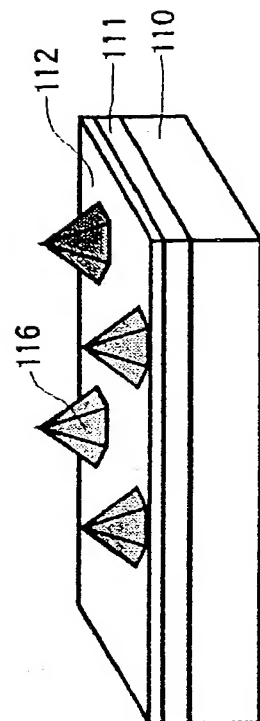


FIG.31A FIG.31B

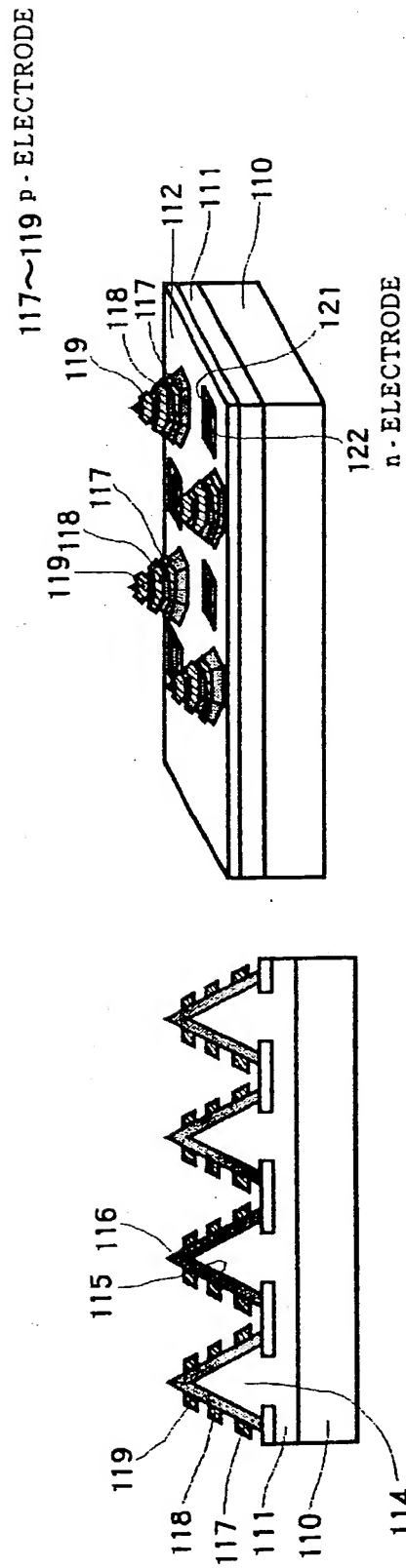


FIG. 32A

FIG. 32B

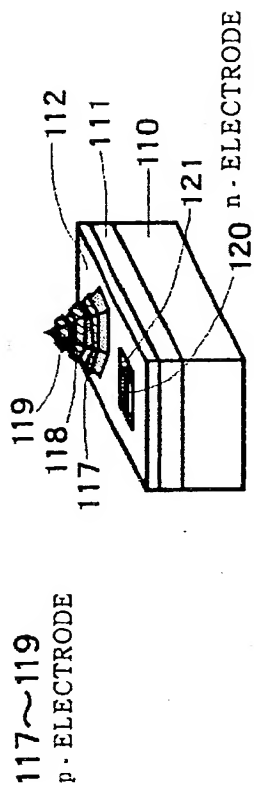
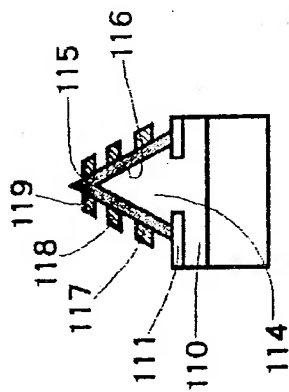


FIG.33

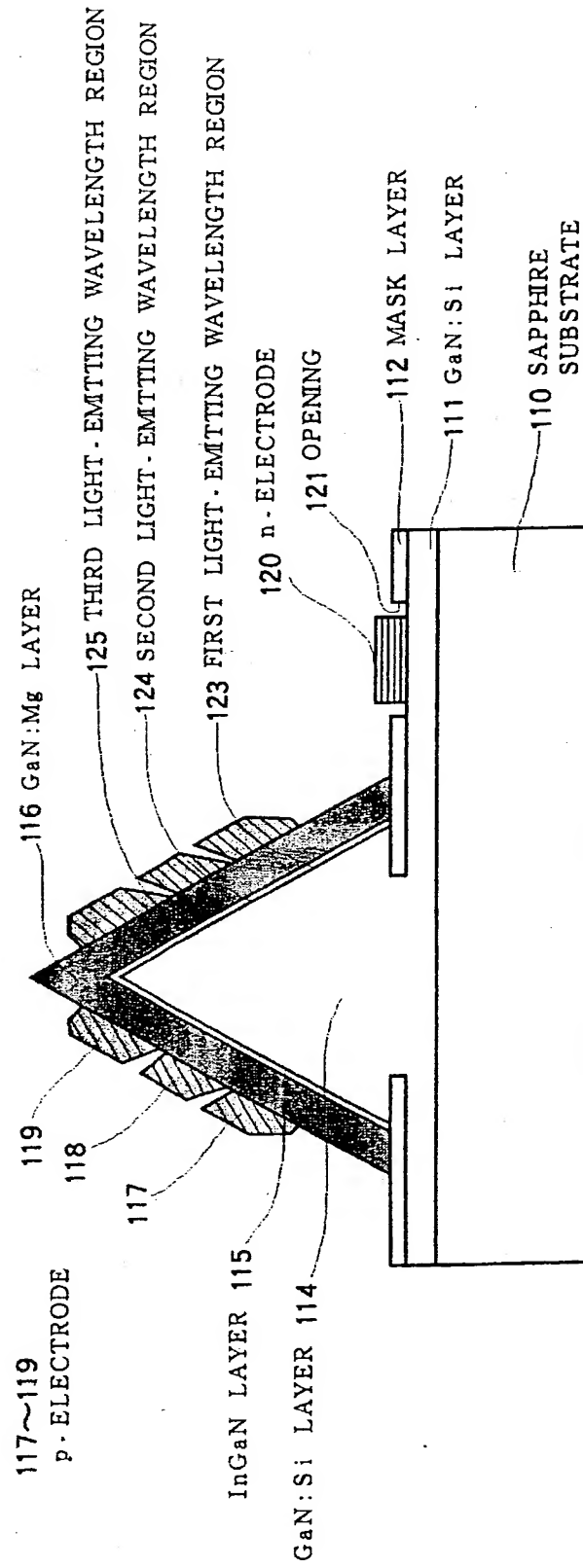


FIG. 34A

FIG. 34B

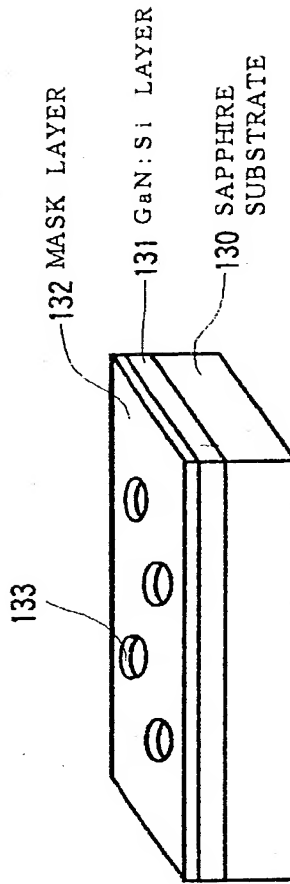
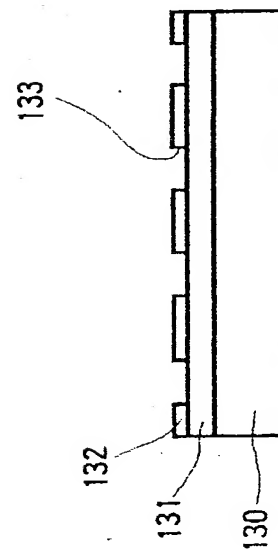


FIG. 35A

FIG. 35B

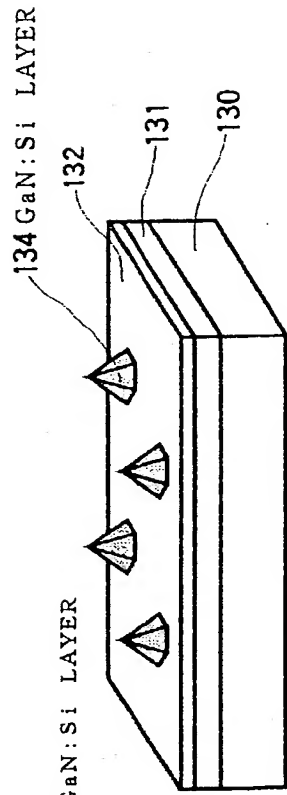
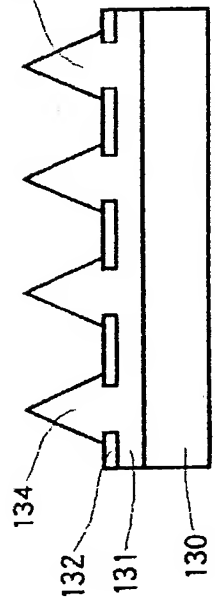


FIG. 36A

FIG. 36B

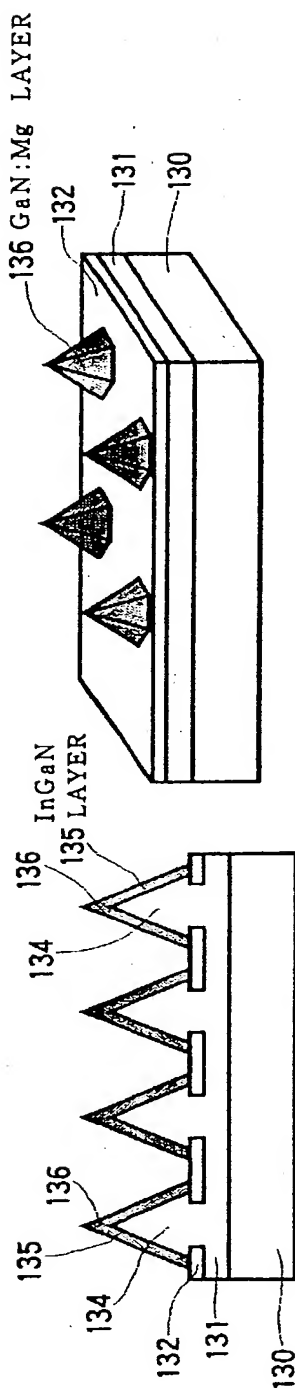


FIG.37A

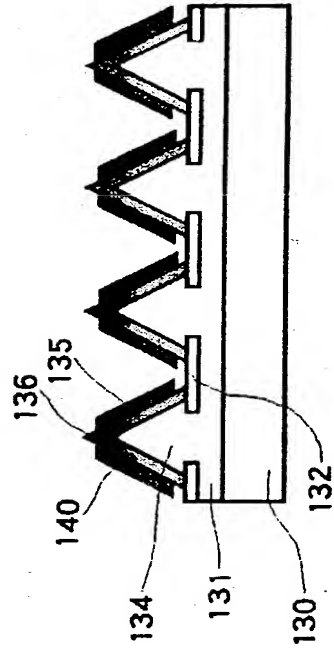


FIG.37B

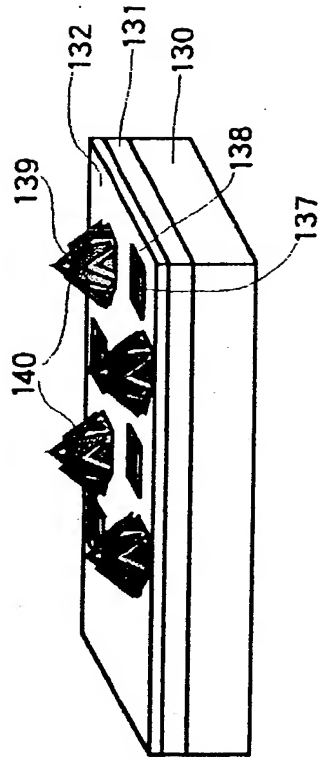


FIG. 38A

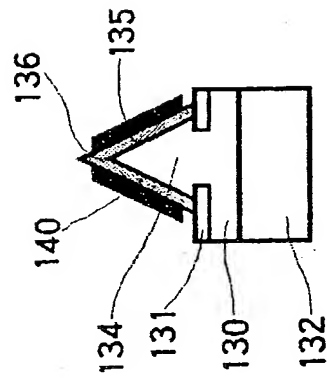


FIG. 38B

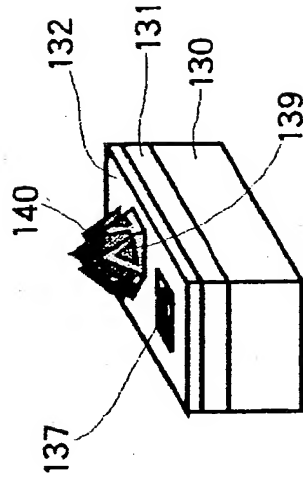


FIG. 39

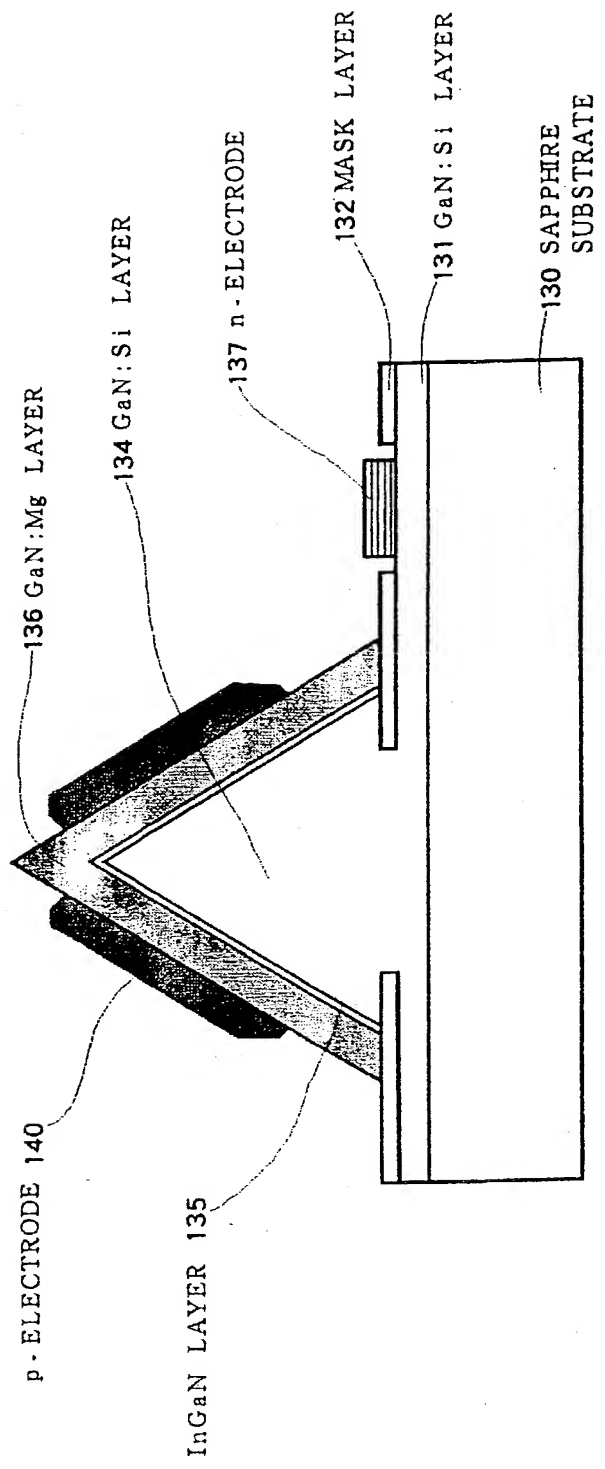


FIG. 40A

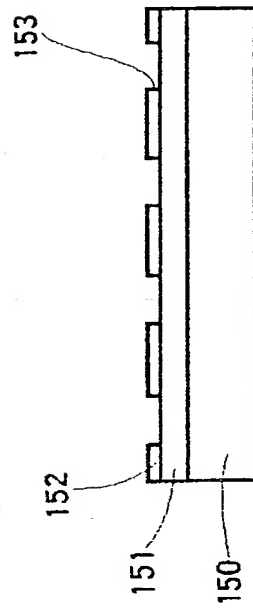


FIG. 40B

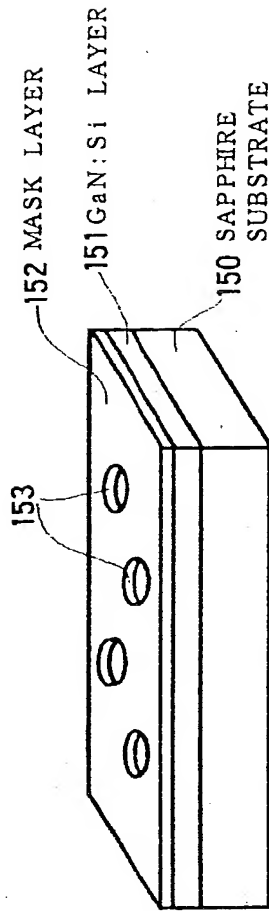


FIG.41A

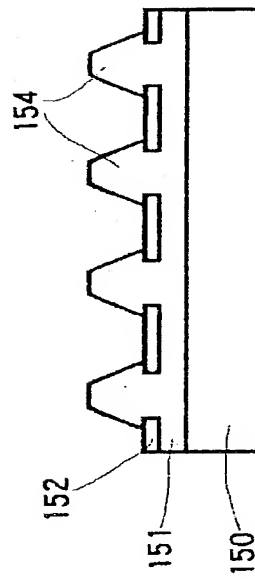


FIG.41B

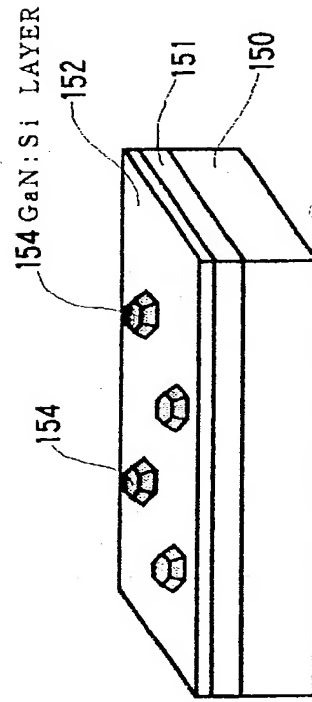


FIG.42A

FIG.42B

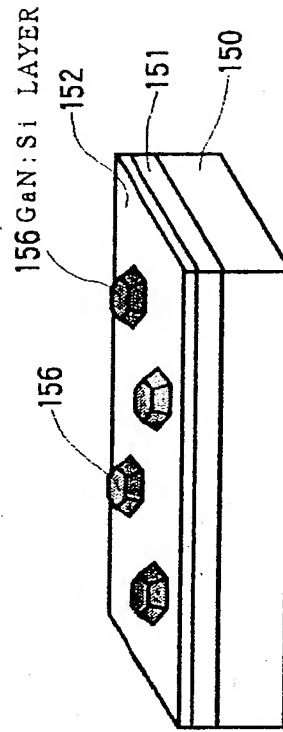
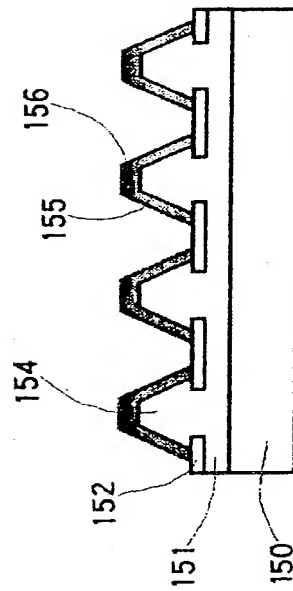


FIG. 43A

FIG. 43B

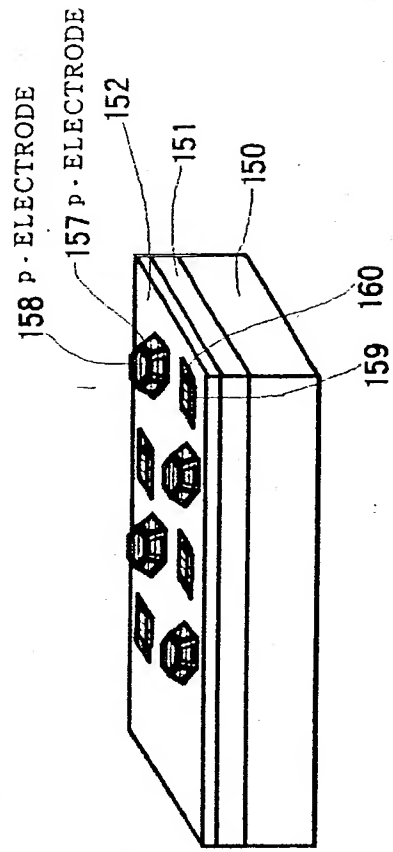
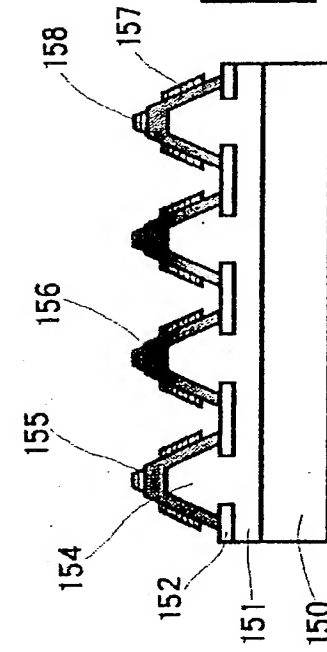


FIG. 44A

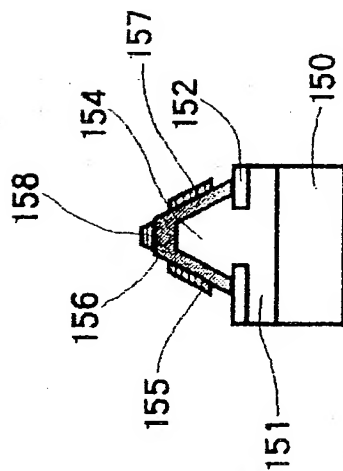


FIG. 44B

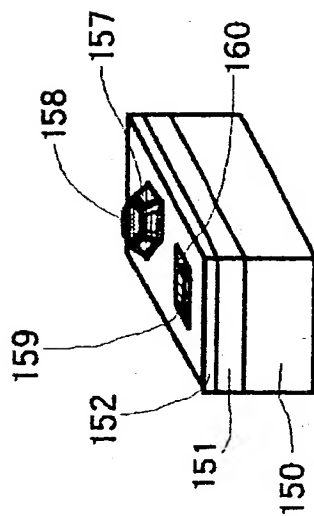


FIG. 45

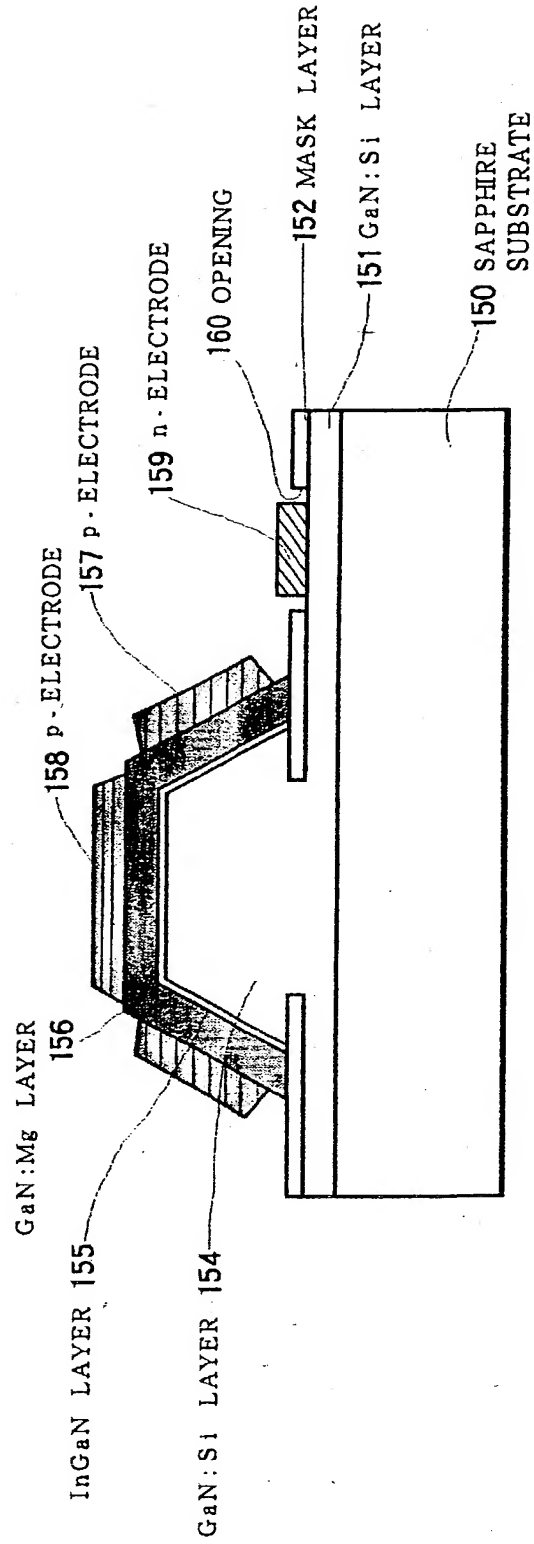


FIG. 46A

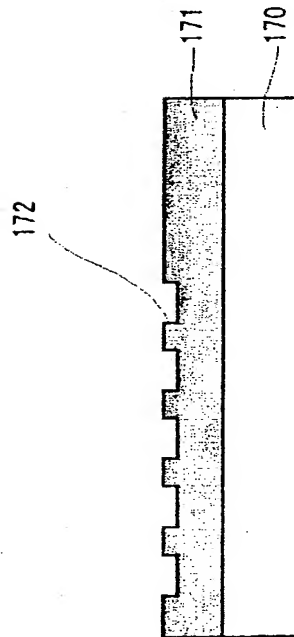


FIG. 46B

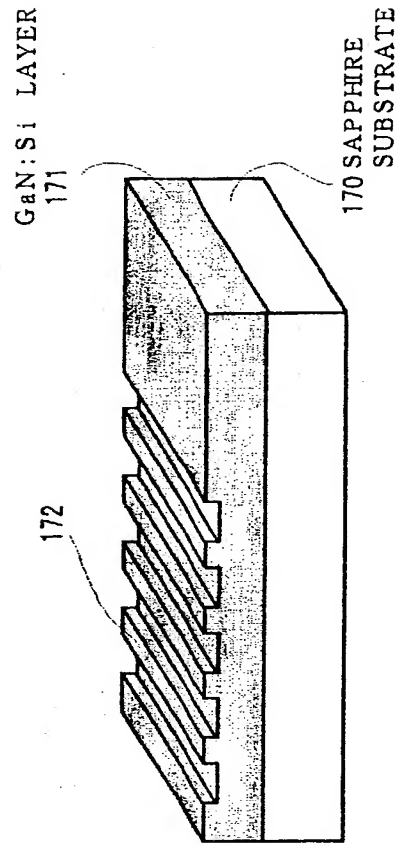


FIG.47A

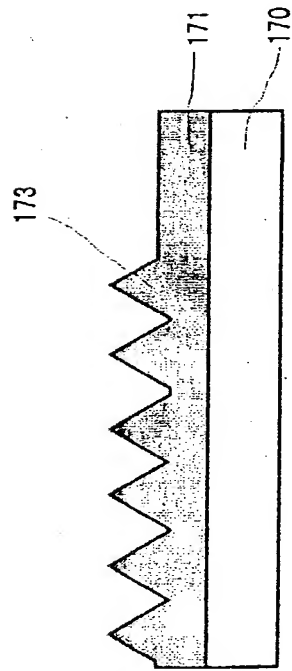


FIG.47B

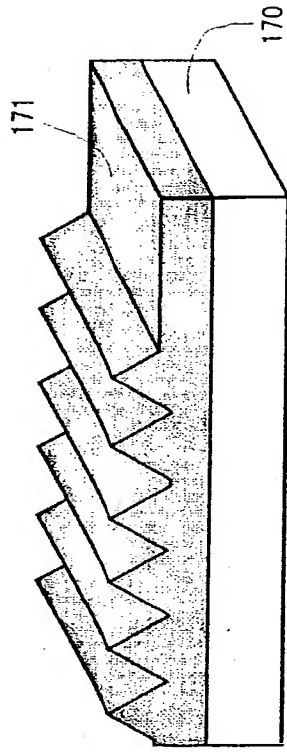


FIG. 48A

FIG. 48B

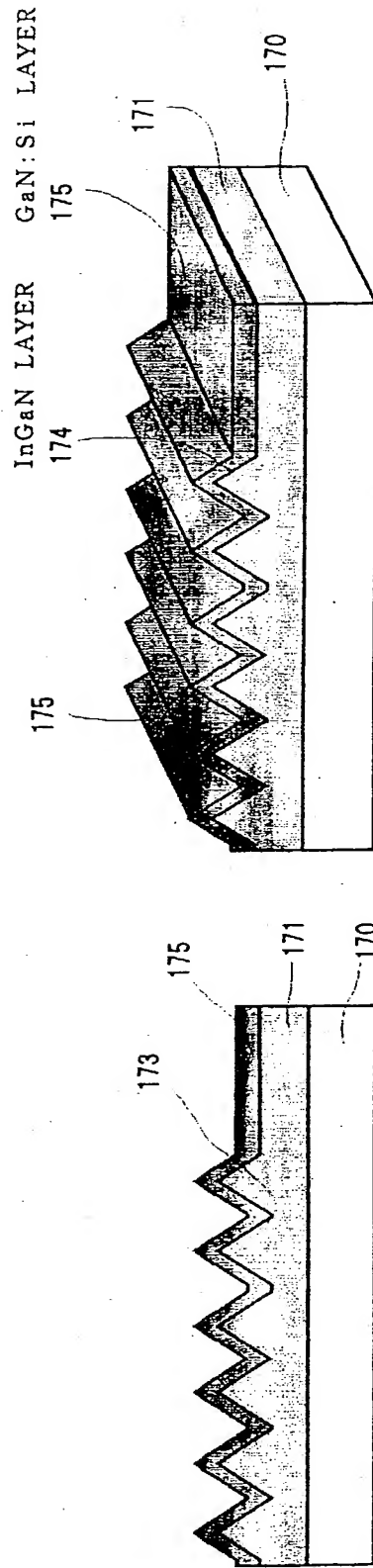


FIG. 49A

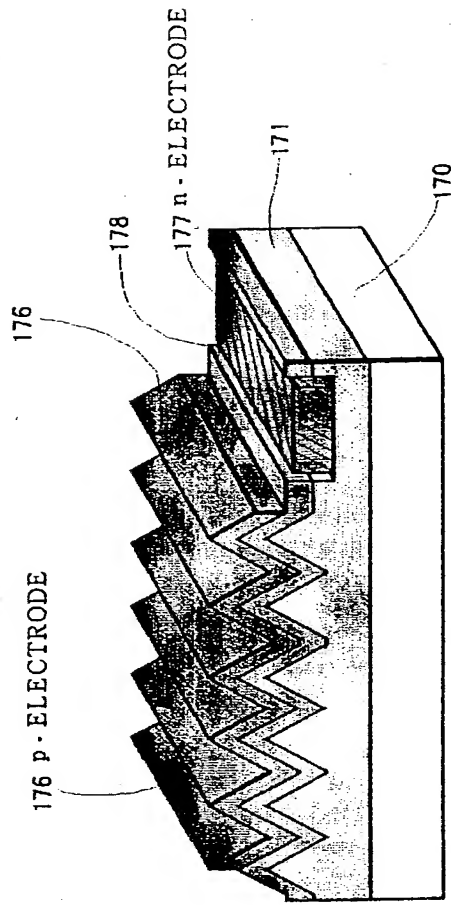
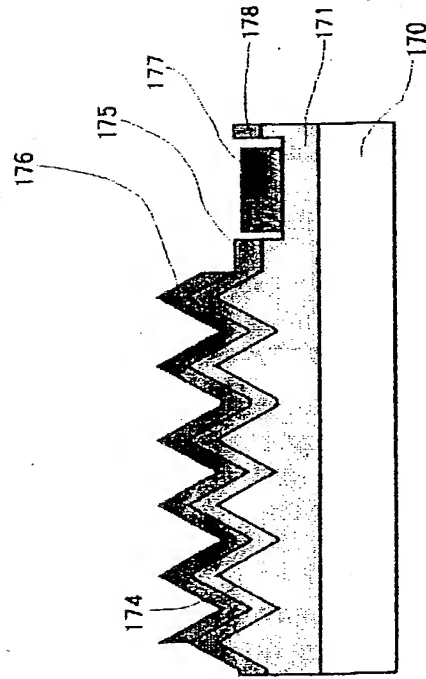


FIG. 50

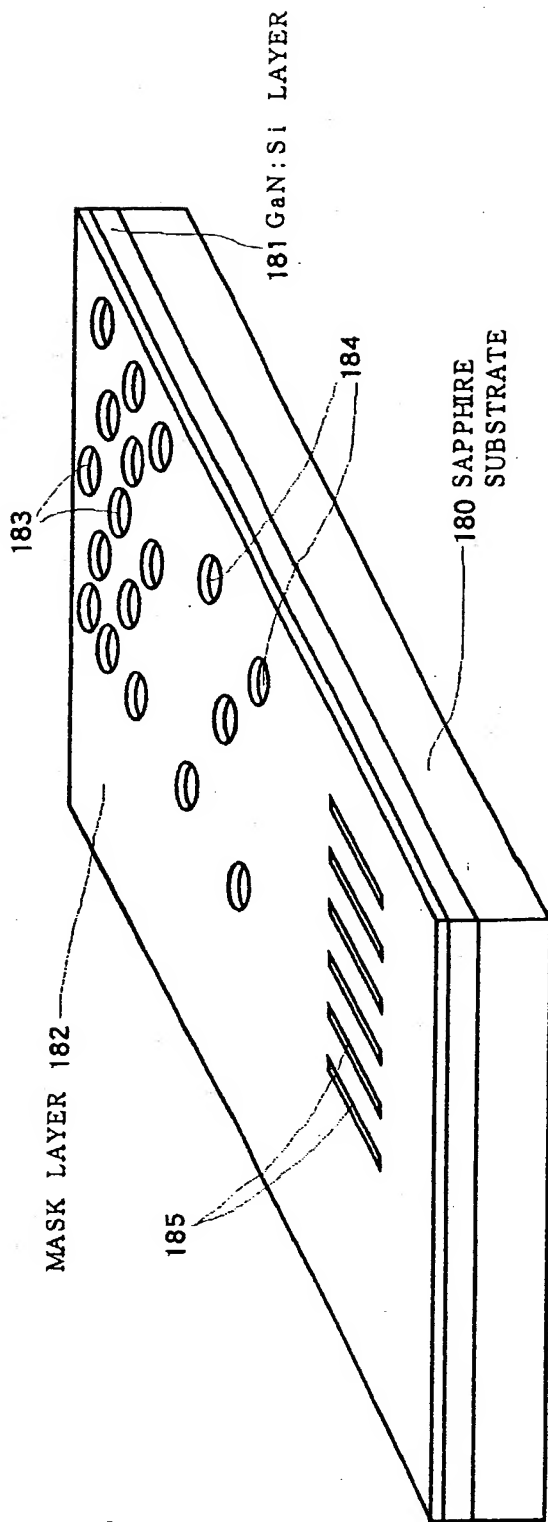


FIG.51

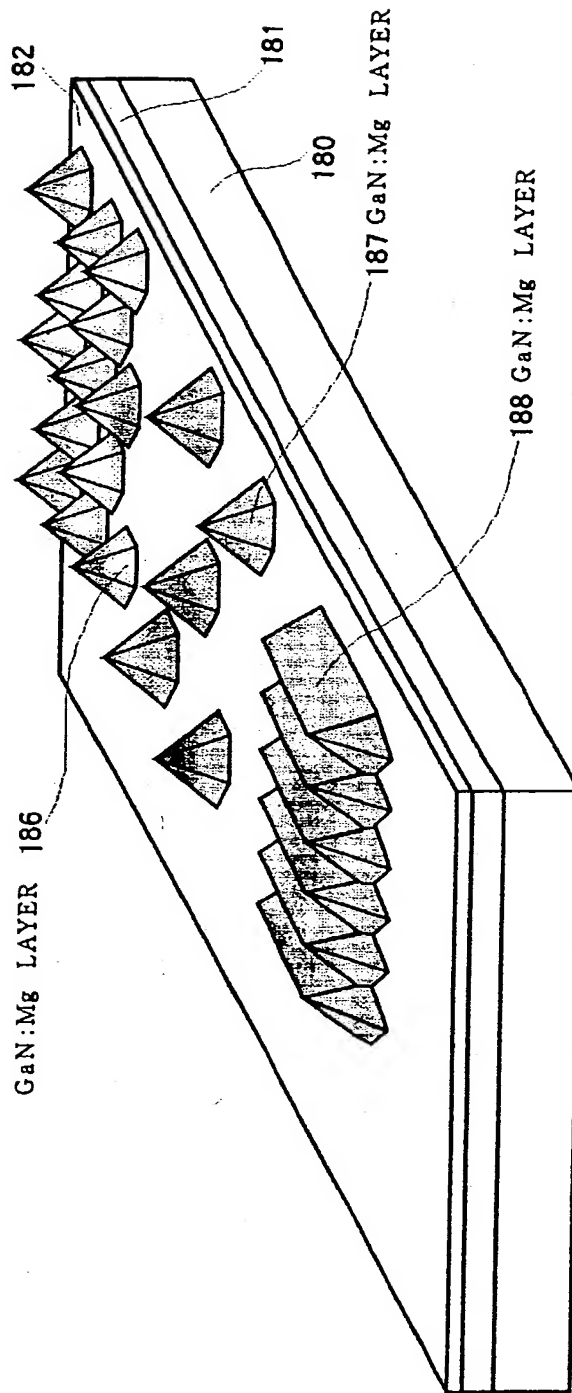


FIG. 52

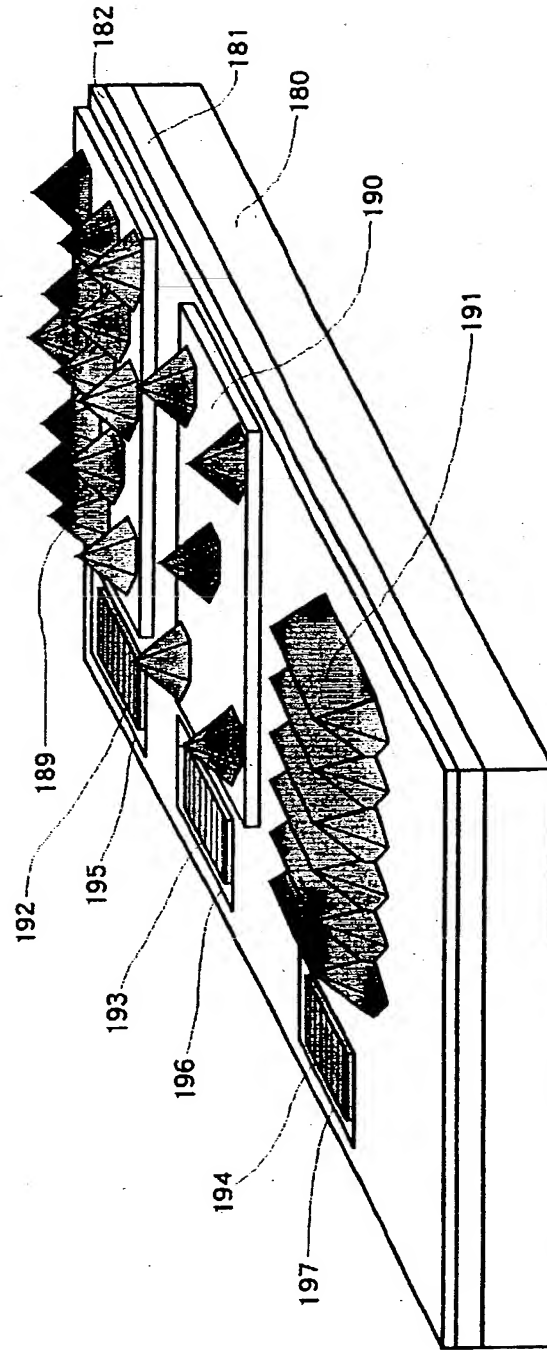


FIG. 53

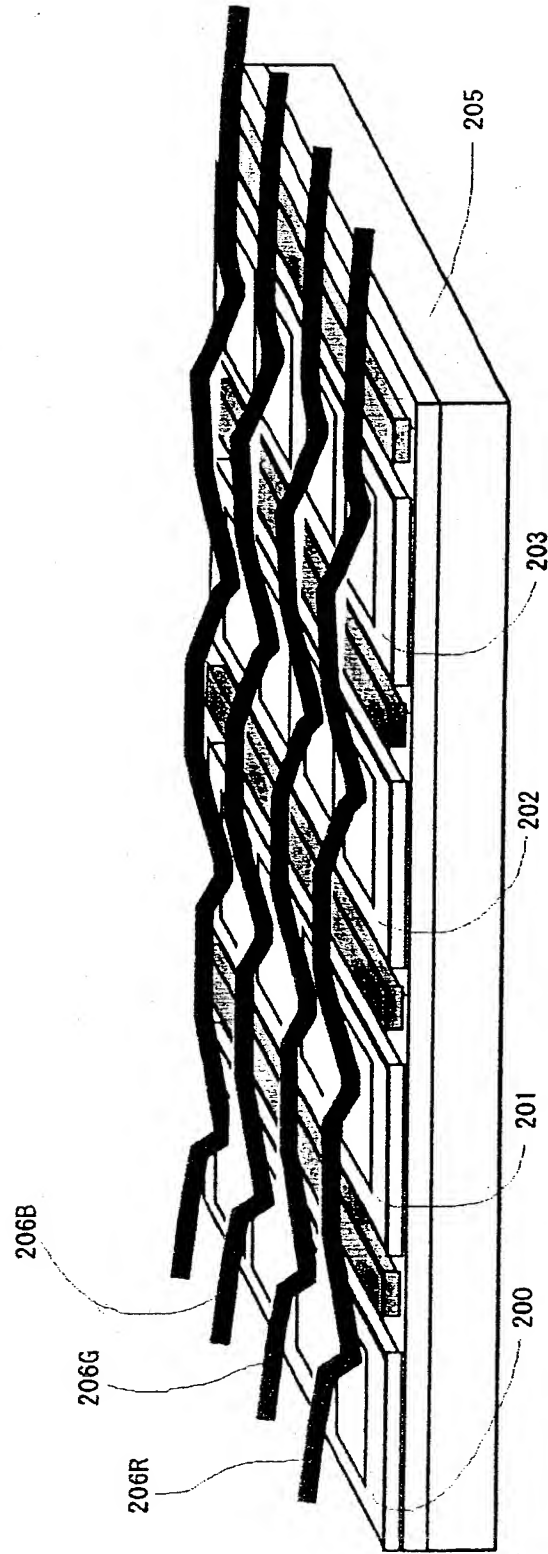


Illustration of Reference Numerals

- 10: sapphire substrate
- 11: Si-doped GaN layer
- 15: InGaN layer (active layer)
- 16: Mg-doped GaN layer
- 17: p-electrode
- 19: n-electrode
- 111: Si-doped GaN layer.
- 200: semiconductor light-emitting device